

R2.1

Protection against dust and dirt ingress and quickly openable



Advantages of the R2.1 system:

- Very light, ideal for high dynamics
- Large inner height and therefore cost-effective
- Cables are protected from swarf
- Easy to fill, lids openable along the inner or outer radius, from both sides
- Low noise operation due to integrated brake
- Integrated separator, recommended for side-mounted applications



When to use another e-tube:

- Extremely swarf-resistant according to IP40
 - ▶ **RX e-tubes, page 516**
- For higher fill weights and unsupported lengths
 - ▶ **R4.1L e-tubes, page 538**



reddot design award
winner 2018



LIN-TECH

**HENNLICH -
ŽIJEME TECHNIKOU**

o.z. LIN-TECH HENNLICH s.r.o.
Českolipská 9, 412 01 Litoměřice

Telefon: +420 416 711 333
E-mail: lin-tech@hennlich.cz

www.hennlich.cz/lin-tech

rotection gainst dust nd dirt ingress nd quickly penable - R2.1

st-effective, robust e-tubes with an inner
ght of 26, 40, 48 or 75mm. Operable and
novable lids along inner or outer radius,
enable from both sides. Very sealed design
d strong double stop-dogs for high fill
ights and unsupported lengths.
arge inner height and therefore cost-
ffective
ables are protected from swarf
Easy to fill, lids operable along the inner or
outer radius, from both sides
ow noise operation due to integrated brake
ntegrated separator, recommended for
side-mounted applications

ical industries and applications
/achine tools ● Wood processing machines
Textile machines ● General mechanical
jineering ● In all areas with dirt and swarf

 e-tubes with igumid HT material for hot
swarf up to +850°C available upon request

 Electrically conductive ESD e-tubes
upon request

 UL94-V0 classification
upon request

 Idot design award
inner 2018

u/R2.1



Series	Inner height <i>hi</i> [mm]	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Outer height <i>ha</i> [mm]	Bend radius <i>R</i> [mm]	Unsupported length ≤ [m]	Page
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R2i.1 e-tubes -
lids operable along the inner radius,
from both sides

R2i.26	26	25 - 75	41 - 91	36	060 - 250	2.00	450
R2i.40	40	50 - 175	66.2 - 191.2	54	080 - 250	2.75	454
R2i.48	48	115 - 250	135 - 270	64	100 - 300	2.75	458



R2.1 e-tubes -
lids operable along the outer radius,
from both sides

R2.26	26	50 - 75	66 - 91	36	060 - 250	2.00	450
R2.40	40	75 - 175	91.2 - 191.2	54	080 - 250	2.75	454
R2.48**	48	**	**	64	100 - 300	2.75	458
R2.75	75	111 - 200	135 - 224	90	130 - 250	3.00	462

**Available upon request. Please consult igus® for delivery time.



Available from stock. Ready to ship in 48 - 72hrs.*

*Average time before the ordered goods are dispatched.



Ideal for areas with swarf - R2.1 e-tubes are extremely tightly sealed

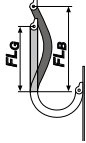
igus 3D CAD, configurators, service life calculation and more ► www.igus.eu/R2.1



Ideal for areas with swarf - R2.1 e-tubes are extremely tightly sealed



Lean separators enable extremely fast cable filling in several layers



Speed gliding¹⁾ / acceleration gliding¹⁾

upon request

Speed FL_g / acceleration FL_a

$\leq 10 \text{ [m/s]} / \leq 100 \text{ [m/s}^2\text{]}$

Speed FL_B / acceleration FL_B

$\leq 3 \text{ [m/s]} / \leq 6 \text{ [m/s}^2\text{]}$



Material - permitted temperature °C, igumid G

$-40^\circ\text{C} / +120^\circ\text{C}$







Flammability class, igumid G

VDE 0304 IIC UL94-HB

FL_g = unsupported with straight upper run FL_B = unsupported with permitted sag

1) Gliding applications for long travels are available upon request, please consult igus®.

Installation types, maximum travels

Series	 Unsupported	 Vertical hanging	 Vertical standing	 Side mounted unsupported
R2.26 / R2i.26	$\leq 4.0\text{m}$	$\leq 30\text{m}$	$\leq 2.0\text{m}$	$\leq 0.7\text{m}$
R2.40 / R2i.40	$\leq 5.5\text{m}$	$\leq 40\text{m}$	$\leq 3.0\text{m}$	$\leq 1.0\text{m}$
R2.48 / R2i.48	$\leq 5.5\text{m}$	$\leq 50\text{m}$	$\leq 3.0\text{m}$	$\leq 1.0\text{m}$
R2.75	$\leq 6.0\text{m}$	$\leq 50\text{m}$	$\leq 5.0\text{m}$	$\leq 2.0\text{m}$

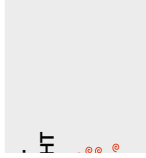


igus 3D CAD, configurators, service life calculation and more ► www.igus.eu/R2.1

Series R2.75

- no burning-
at start
50°C

ESD - electrically
conductive
material



11.R.0.HT

R2.75.111.R.0.ESD

to ship
weeks*

Delivery time
upon request

Examples based on series R2.75

Configuration:

Length: 1.0m or 17 links R2.75.111.130.0

R2.750.111.12

2 x 75.1.1

75.1.1

Colour options

Order index	Colour	Order index
.0	Orange	Special colour .2
.31	Yellow	Special colour .4
.1	Light grey	Special colour .14
.1S		

Ready to ship in 48 - 72hrs.*
upon request

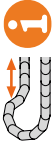
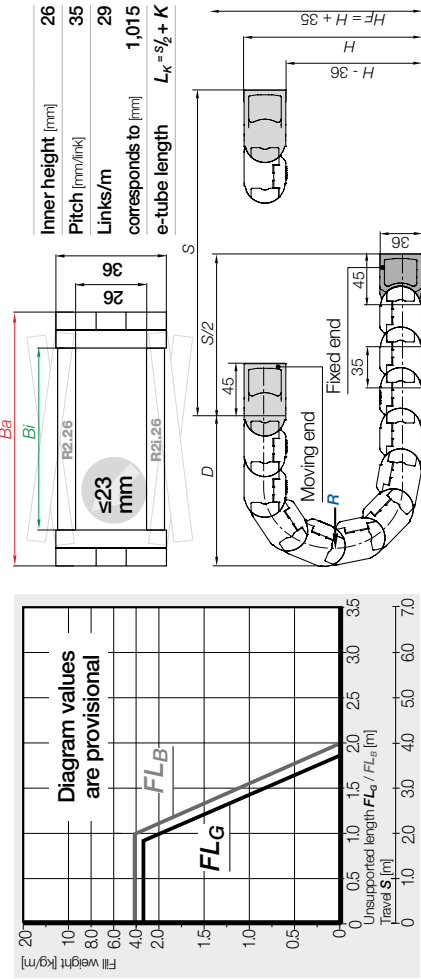


igus® R2.1 e-tube in operation in a fast stamping and bending machine to guide servo and encoder cables

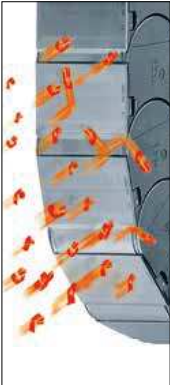


ier radius, from both sides
ter radius, from both sides

nd radii	R2i.26	R2.26
	[kg/m]	[kg/m]
0 125 150 175 200 250	≈ 0.870	≈ 0.870
0 125 150 175 200 250	≈ 0.957	≈ 0.957
0 125 150 175 200 250	≈ 1.044	≈ 1.044
0 125 150 175 200 250	≈ 1.218	≈ 1.218
0 125 150 175 200 250	≈ 1.392	≈ 1.392
0 125 150 175 200 250	≈ 1.600	≈ 1.600



If a gliding application is required for a long travel, please consult igus®.

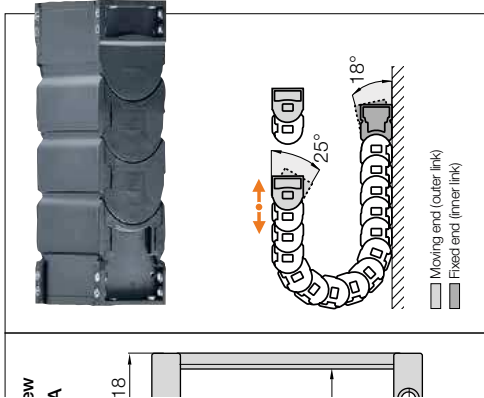


Aluminium support tray

- Corrosion-resistant and seawater-resistant aluminium rails with adjustable width
- Noise-reducing glide strip integrated as standard
- Easy installation and connection of the e-tube
- Open design - dirt and debris fall through

More information ▶ From page 1362





Applications
and standing applications

A	B	Bi
[mm]	[mm]	[mm]
43	34.5	25
56	47.5	38
68	59.5	50
93	84.5	75
118	109.5	100
148	139.5	130

o.z. LIN-TECH HENNlich s.r.o.
Českolipská 9, 412 01 Litoměřice

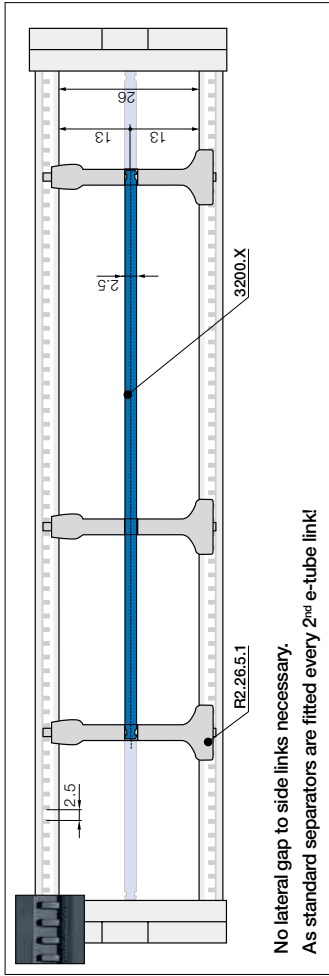
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R2.260.050.12.A Order example

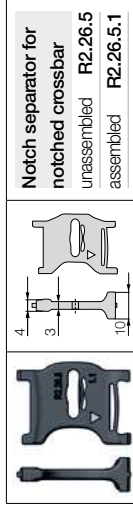


s are available from stock. The complete
2

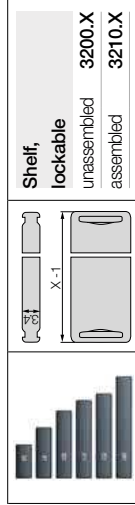
3u/R2.26



No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-tube link!



Locks securely in preset increments
Notch separator for exact positioning. Recommended for side-mounted applications.



Horizontal separation
Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or partial shelf.

Shelves

Width = X [mm]



X [mm]	un assembled	assembled	X [mm]	un assembled	assembled
050	3200.050	3210.050	115	3200.115	3210.115
075	3200.075	3210.075	125	3200.125	3210.125
100	3200.100	3210.100	150	3200.150	3210.150

Separator with integrated strain relief teeth

- Can be integrated into the mounting bracket or placed at any point
- Combines strain relief and interior separation, for restricted space conditions
- Strain relief separator is easy to assemble without any screws

Part No. R2.26.Z - more information ▶ From page 1424



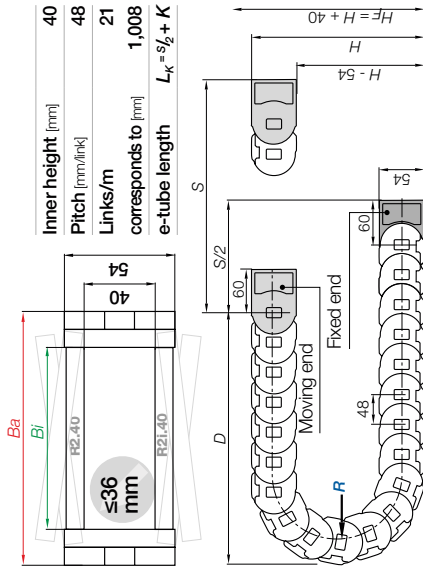
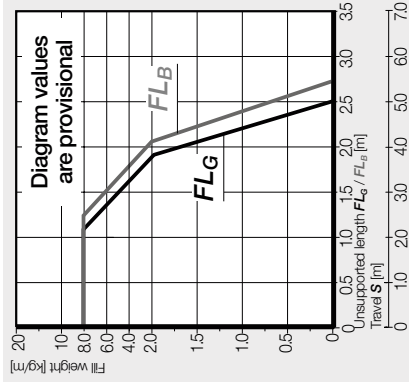
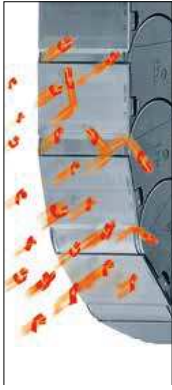
Telefon: +420 416 711 333
E-mail: lin-tech@hennlich.cz



er radius, from both sides
ter radius, from both sides

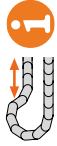
nd radii	R2i.40	R2.40
25 150 175 200 250	kg/m	kg/m
25 150 175 200 250	≈ 1.25	≈ 1.25
25 150 175 200 250	≈ 1.50	≈ 1.50
25 150 175 200 250	≈ 1.75	≈ 1.75
25 150 175 200 250	≈ 2.00	≈ 2.00
25 150 175 200 250	≈ 2.25	≈ 2.25
25 150 175 200 250	≈ 2.50	≈ 2.50
25 150 175 200 250	≈ 2.75	≈ 2.75

je 130



R	080	100	125	150	175	200	250
H	214	254	304	354	404	454	554
D	179	199	224	249	274	299	349
K	350	415	490	570	650	725	885

The required clearance height: $H_f = H + 40\text{mm}$ (with 2.0kg/m fill weight)



If a gliding application is required for
a long travel, please consult igus®.

- Aluminium support tray**
- Corrosion-resistant and seawater-resistant aluminium rails with adjustable width
 - Noise-reducing glide strip integrated as standard
 - Easy installation and connection of the e-tube
 - Open design - dirt and debris fall through

More information ▶ From page 1362





Applications and standing applications

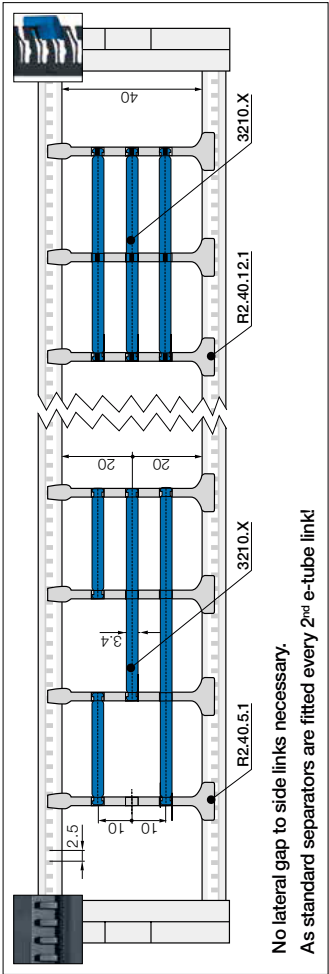
full set	A	B	Bi
	[mm]	[mm]	[mm]
ids locking			
.050.12	74	62	50
.075.12	99	87	75
.100.12	124	112	100
.125.12*	149	137	125
.150.12	174	162	150
.175.12	199	187	175
.200.12*	224	212	200

ising
i any
base



s are available from stock. The complete 2

3u/R2.40



Locks securely in preset increments
Notch separator for exact positioning. Recommended for side-mounted applications.

Horizontal separation

Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or partial shelf.

Shelves	X [mm]	un assembled	assembled	X [mm]	un assembled	assembled
Width = X [mm]						
050	3200.050	3210.050	115	3200.115	3210.115	175
075	3200.075	3210.075	125	3200.125	3210.125	200
100	3200.100	3210.100	150	3200.150	3210.150	3210.200

Interior separation | To allow faster filling

Lean separator ¹⁾	R2.40.12
un assembled	assembled
assembled	un assembled

Lean separators¹⁾

For quick fitting of shelves in several layers.
1) Note: Please combine maximum 4 lean separators with one shelf. Not suitable for side-mounted e-chains²⁾

With the lean separator you can quickly insert several layers of cables into the e-chain[®] and reduce the installation time by up to 50%²⁾.

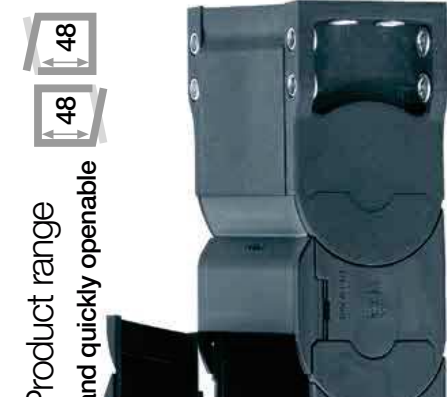
2) Lean interior separation vs. Standard separator - measured on a 4m long e-chain[®] fitted with 12 cables in theigus[®] readychain[®] factory



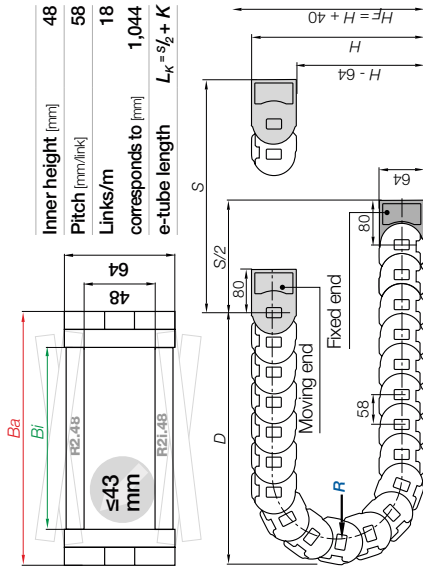
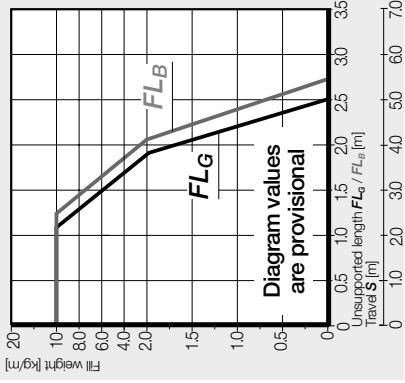
Separator with integrated strain relief teeth
● Can be integrated into the mounting bracket or placed at any point
● Combines strain relief and interior separation, for restricted space conditions
● Strain relief separator is easy to assemble without any screws
Part No. R2.40.Z - more information ▶ From page 1424



igus 3D CAD, configurators, service life calculation and more ▶ www.igus.eu/R2.1

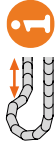


Inner radii	R2i.48	R2.48
	[kg/m]	[kg/m]
10	175 200 225 250 300	≈ 1.92 ≈ 1.92
10	175 200 225 250 300	≈ 2.23 ≈ 2.23
10	175 200 225 250 300	≈ 2.55 ≈ 2.55
10	175 200 225 250 300	≈ 2.74 ≈ 2.74
10	175 200 225 250 300	≈ 2.86 ≈ 2.86
10	175 200 225 250 300	≈ 3.18 ≈ 3.18
10	175 200 225 250 300	≈ 3.49 ≈ 3.49
10	175 200 225 250 300	≈ 3.81 ≈ 3.81
10	175 200 225 250 300	≈ 4.05 ≈ 4.05
10	175 200 225 250 300	≈ 4.44 ≈ 4.44

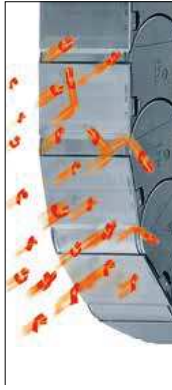


R	100	125	150	175	200	225	250	300
H	264	314	364	414	464	514	564	664
D	219	244	269	294	319	344	369	419
K	435	510	590	670	745	825	905	1060

The required clearance height: $H_f = H + 40\text{mm}$ (with 2.0kg/m fill weight)



i If a gliding application is required for a long travel, please consult igus®.

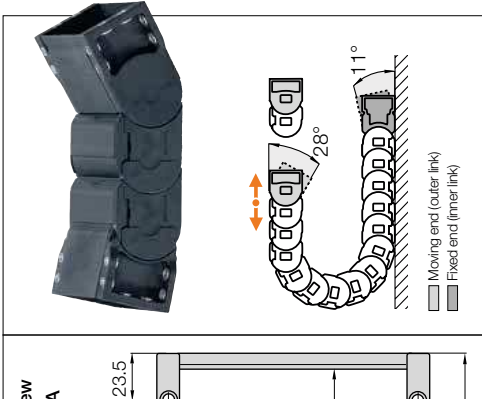


Aluminium support tray

- Corrosion-resistant and seawater-resistant aluminium rails with adjustable width
- Noise-reducing glide strip integrated as standard
- Easy installation and connection of the e-tube
- Open design - dirt and debris fall through

More information ▶ From page 1362





Applications
and standing applications

A	B	Bi
[mm]	[mm]	[mm]
74	62	50
99	87	75
124	112	100
139	127	115
149	137	125
174	162	150
199	187	175
224	212	200
249	237	225
274	262	250

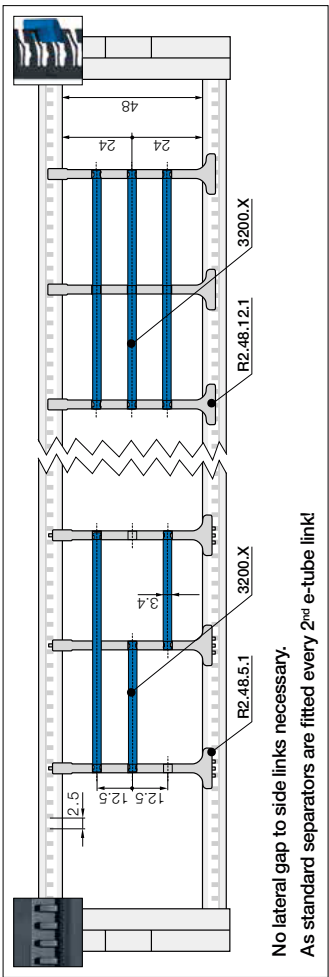
Using
any
base

R2.480.115.56 A Order example

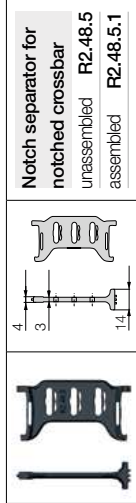


are available from stock. The complete
2

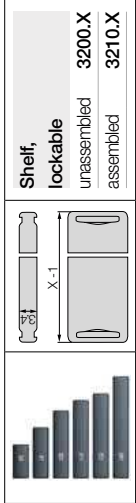
3D/R2.48



No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-tube link!



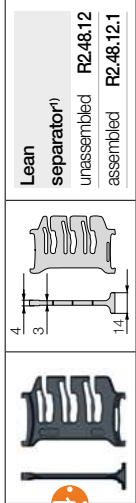
Locks securely in preset increments
Notch separator for exact positioning. Recommended for side-mounted applications.



Horizontal separation
Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or partial shelf.

Shelves Width = X [mm]	X [mm]	unassembled	assembled	X [mm]	unassembled	assembled
050	3200.050	3210.050	125	3200.125	3210.125	225
075	3200.075	3210.075	150	3200.150	3210.150	250
100	3200.100	3210.100	175	3200.175	3210.175	
115	3200.115	3210.115	200	3200.200	3210.200	

Interior separation | To allow faster filling



Lean separators¹⁾
For quick fitting of shelves in several layers.
1) **Note: Please combine maximum 4 lean separators with one shelf. Not suitable for side-mounted e-chains!**

With the lean separator you can quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%²⁾.

2) Lean interior separation vs. Standard separator - measured on a 4m long e-chain® fitted with 12 cables in the igus® readychain® factory

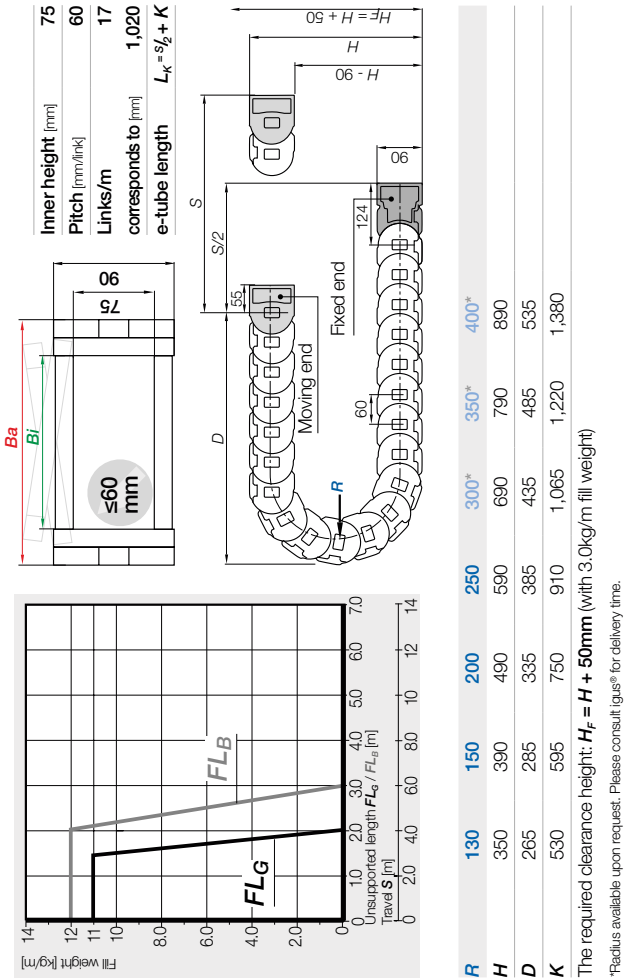
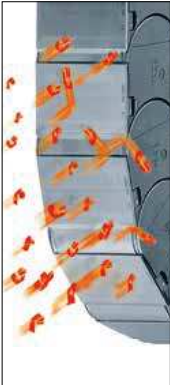



igus 3D CAD, configurators, service life calculation and more ► www.igus.eu/R2.1



Inner radius, from both sides

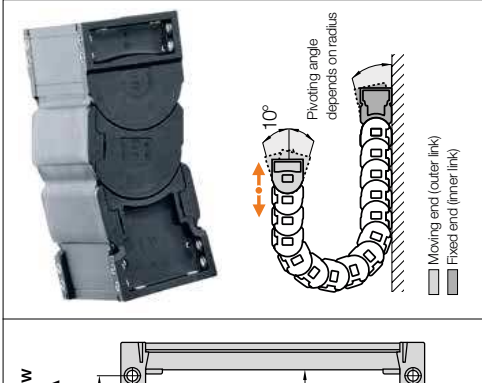
Inner radii	R2.75 [kg/m]
100 250 300* 350* 400*	≈ 3,175
100 250 300* 350* 400*	≈ 3,672
100 250 300* 350* 400*	≈ 4,012



 If a gliding application is required for a long travel, please consult igus®.

- Aluminium support tray
- Corrosion-resistant and seawater-resistant aluminium rails with adjustable width
 - Noise-reducing glide strip integrated as standard
 - Easy installation and connection of the e-tube
 - Open design - dirt and debris fall through
- More information ▶ From page 1362





Applications

A	B	Bi
[mm]	[mm]	[mm]
141	127	111
193	179	163
230	216	200

using
any
base

R2.750.111.12.A

Order example

Pre-assembled

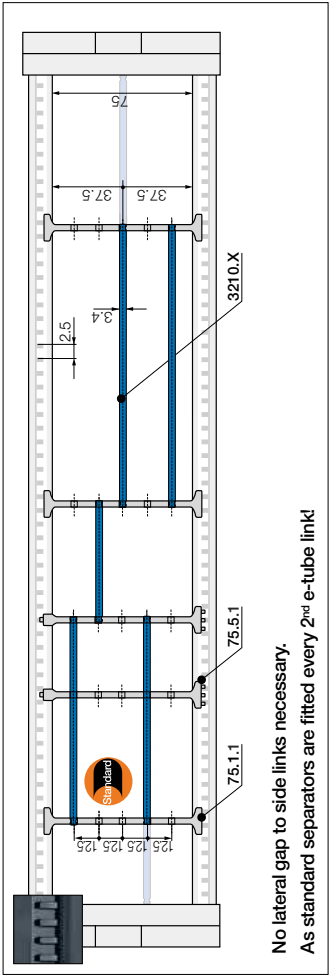
Full set

Width index

Series

are available from stock. The complete

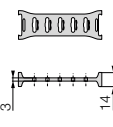
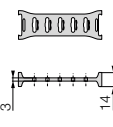
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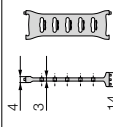
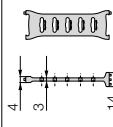


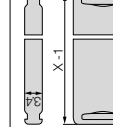
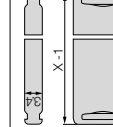
Standard - for any application
Separator with a wide base for maximum holding force.

Locks securely in preset increments
Notch separator for exact positioning. Recommended for side-mounted applications.

Horizontal separation
Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or partial shelf.

		Standard separator, wide base
unassembled	75.1	
assembled	75.1.1	

		Notch separator for notched crossbar
unassembled	75.5	
assembled	75.5.1	

		Shelf, lockable
unassembled	3200.X	
assembled	3210.X	

Shelves	Width = X [mm]	X [mm]	unassembled	assembled	X [mm]	unassembled	assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200
100	3200.100	3210.100	150	3200.150	3210.150		